

**FY 2002 Trend Results
Based on AEOD and ASP Indicators**

**Indicators Originally Developed by the Former Office of AEOD and
Accident Sequence Precursor (ASP) Indicators**

Automatic Scrams While Critical

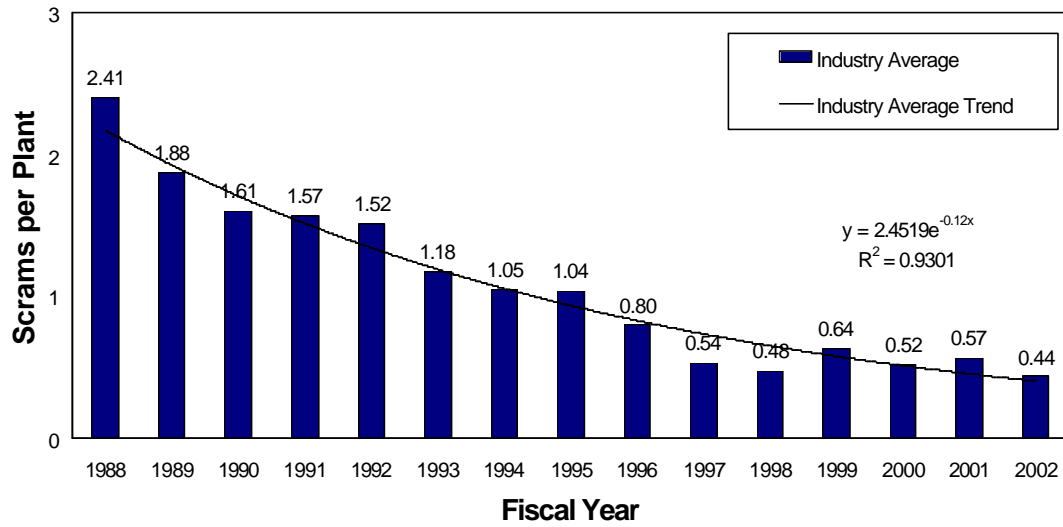


Figure A2-1

Safety System Failures

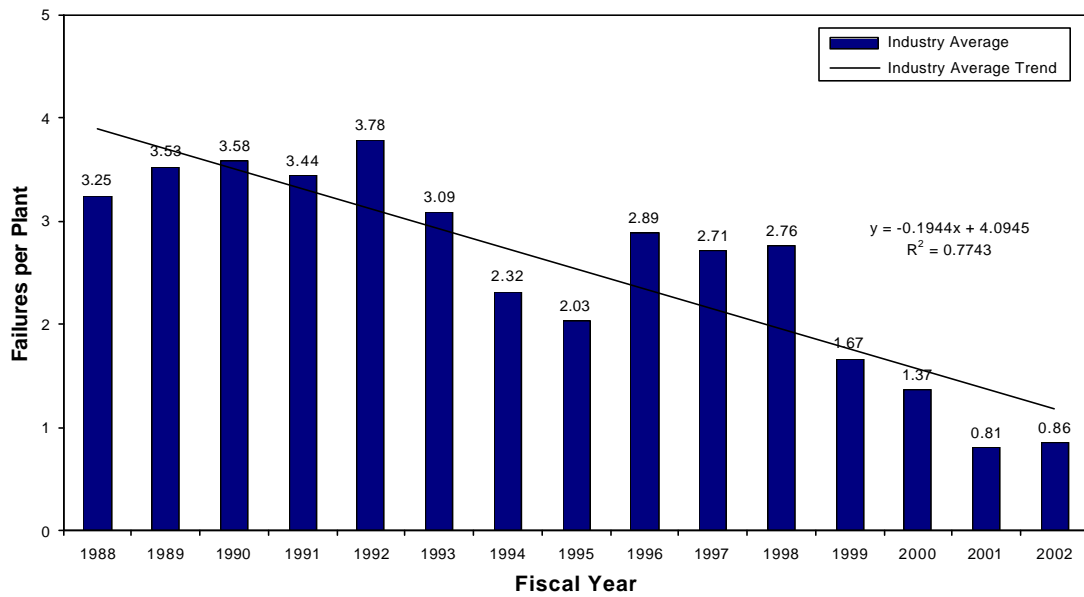


Figure A2-2

Safety System Actuations

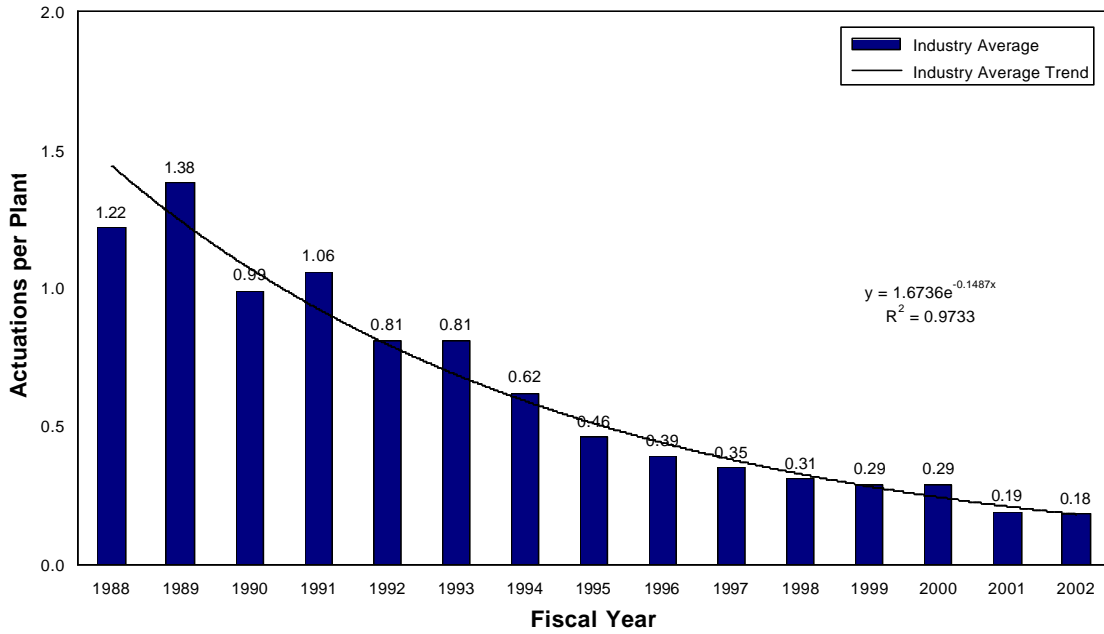


Figure A2-3

Forced Outage Rate (%)

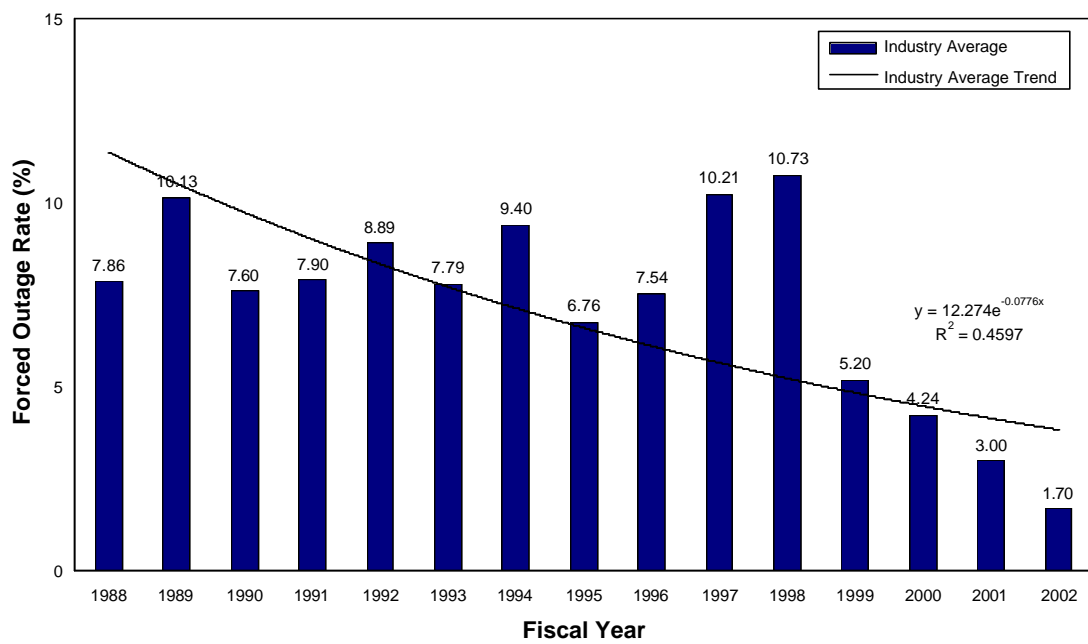


Figure A2-4

Equipment Forced Outages/
1000 Commercial Critical Hours

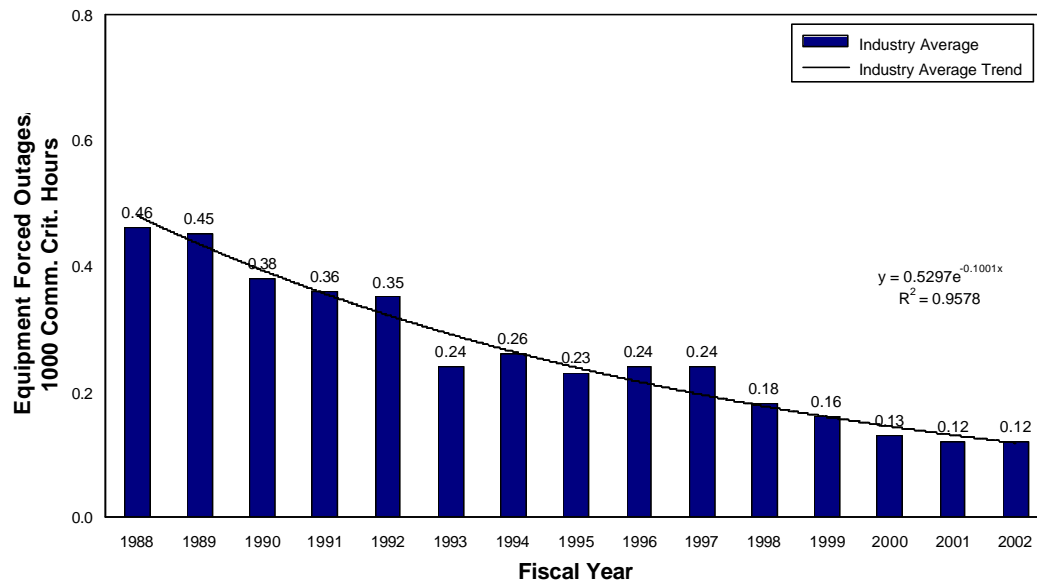


Figure A2-5

Collective Radiation Exposure

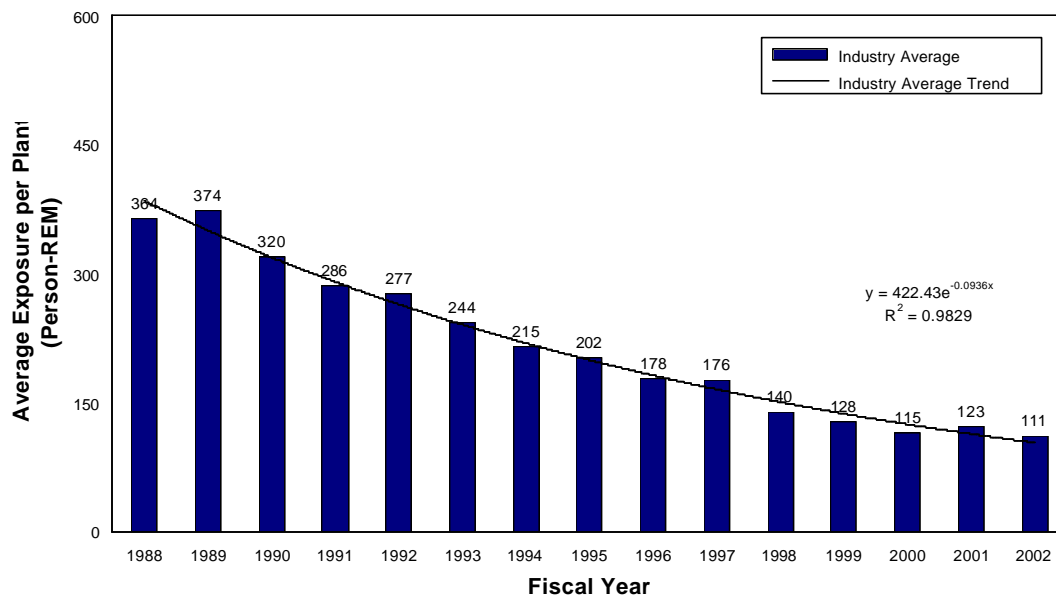
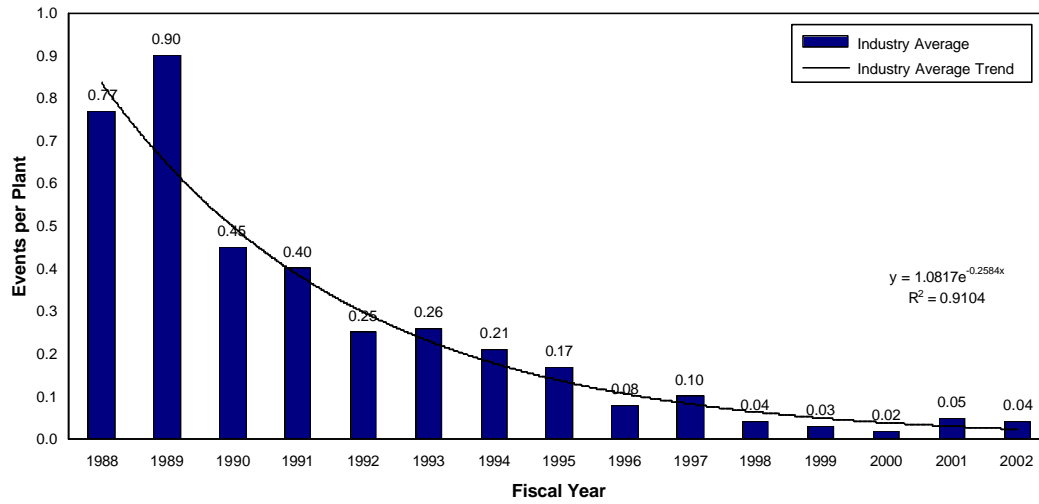


Figure A2-6

Significant Events



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A2-7

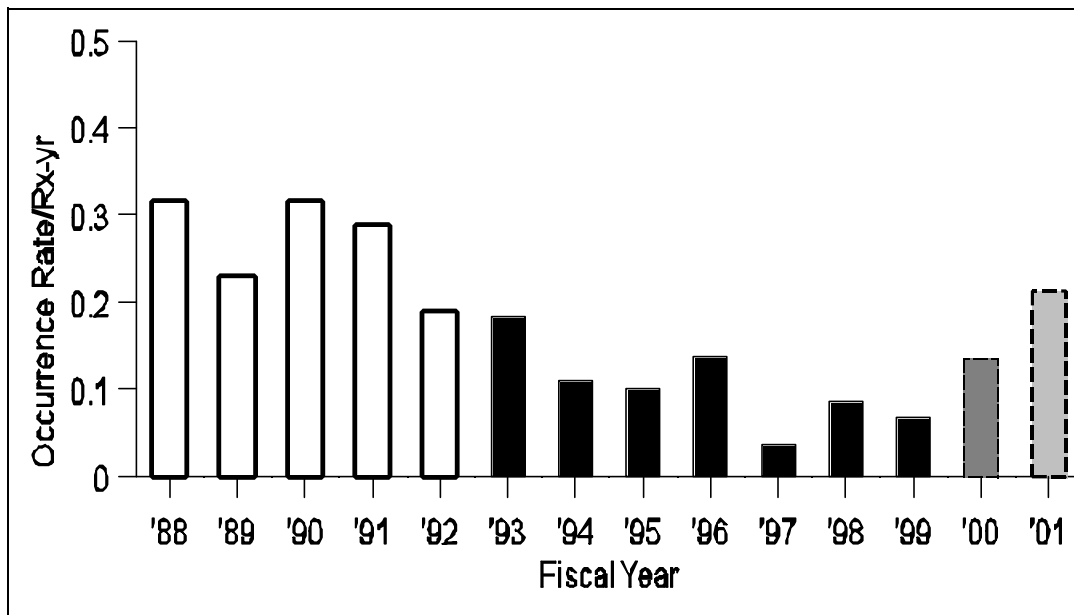
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Accident Sequence Precursor Trends

Figure A2-8 below shows the occurrence rate per reactor-year for all Accident Sequence Precursor (ASP) events by fiscal year. No statistically significant trend was observed in the occurrence rate for all precursors (CCDP or ?CDP $\geq 10^{-6}$) during the 1993–2001 period (shaded bars in the figure).

The trend is based on the number of all precursors starting in FY 1993. Data prior to FY 1993 are shown in the figure to provide historical perspective. Analyses for FY 2000 are preliminary with final analyses nearing completion (pending resolution of peer review comments). The data for FY 2001 are based on ongoing analyses that have undergone internal staff review. The number of ASP events may decrease as the analyses are finalized. RES has provided additional information on the ASP Program in SECY-03-0049, “Status of the Accident Sequence Precursor (ASP) and the Development of Standardized Plant Analysis Risk (SPAR) Models.”

Nonetheless, the staff will investigate the nature of the precursors to determine if there is an explanation for the relatively low number of precursors between 1997 and 1999 and the increasing number of potential precursors in 2000 and 2001. This evaluation will occur after RES completion of the preliminary analyses of FY 2001 events. This evaluation will be a joint project between NRR and RES as part of the Industry Trends Program. The evaluation may include a review of the risk significance of the events, types of facilities involved, a categorization of causes and factors for analyzed events and conditions, the time period for analysis, and whether any additional actions are appropriate.



All precursors—occurrence rate per reactor-calendar year, by fiscal year. No trend was identified during the FY 1993–2001 period. The results for 2000 and 2001 are preliminary. A trend line is not shown in the figure because the trend is not statistically significant.

Figure A2-8